

The background is a photograph of a park with green grass, a paved path, and trees with yellow autumn leaves. A large, semi-transparent blue circle is overlaid on the right side of the image.

Windermere Basin CSO Reduction Project

Public Meeting

May 20, 2010

History of Sewers in Seattle

- 💧 1883 First sewer - Madison, Fifth to Elliott Bay
- 💧 1922 Total of 30 raw sewage outfalls existed
- 💧 1950 Practice of constructing combined sewers discontinued
- 💧 1972 & 1977 Clean Water Act
 - Established NPDES Program
 - Provided for enforcement actions

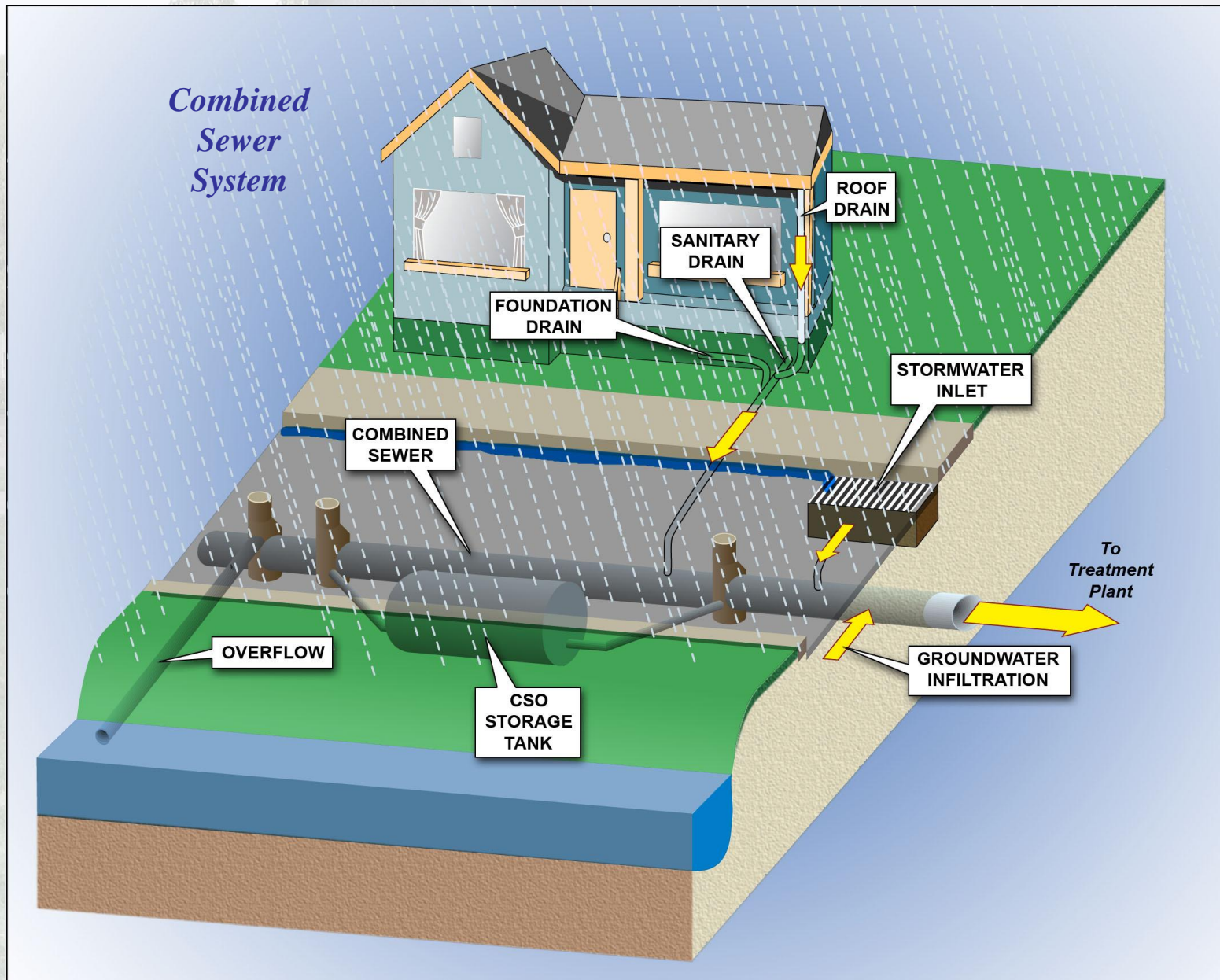
Combined Sewer Overflow (CSO)?



💧 In parts of Seattle, *wastewater* (from homes, businesses) and *stormwater* (from rooftops, streets, parking lots) flow in a single pipe - a “combined sewer.”

💧 During heavy rains, stormwater (about 90%) and sewage (about 10%) exceed the capacity of the system, causing a combined sewer overflow or CSO into the nearest body of water.

What is a combined sewer system?



Combined Sewer Overflows (CSOs)

- 💧 90 permitted CSO outfalls
- 💧 100 million gallons CSO discharge annually
- 💧 About 200 CSO discharge events annually

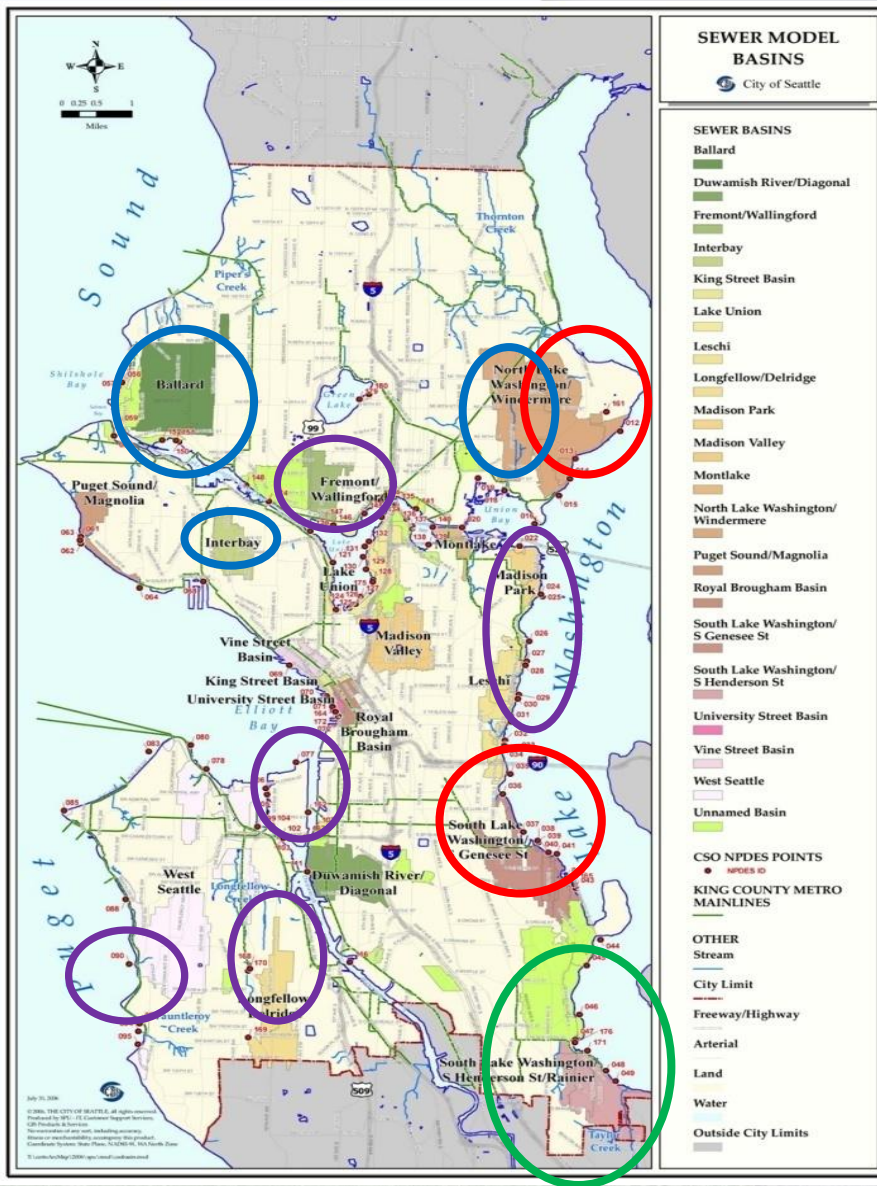


CSO Program Goals

- 💧 Finish the historic effort
- 💧 Improve water quality
- 💧 Comply with the Clean Water Act, state/federal regulations, permits & orders
- 💧 Minimize rate impacts
- 💧 Partner for cost-effective solutions

Focus on Next 5 Years

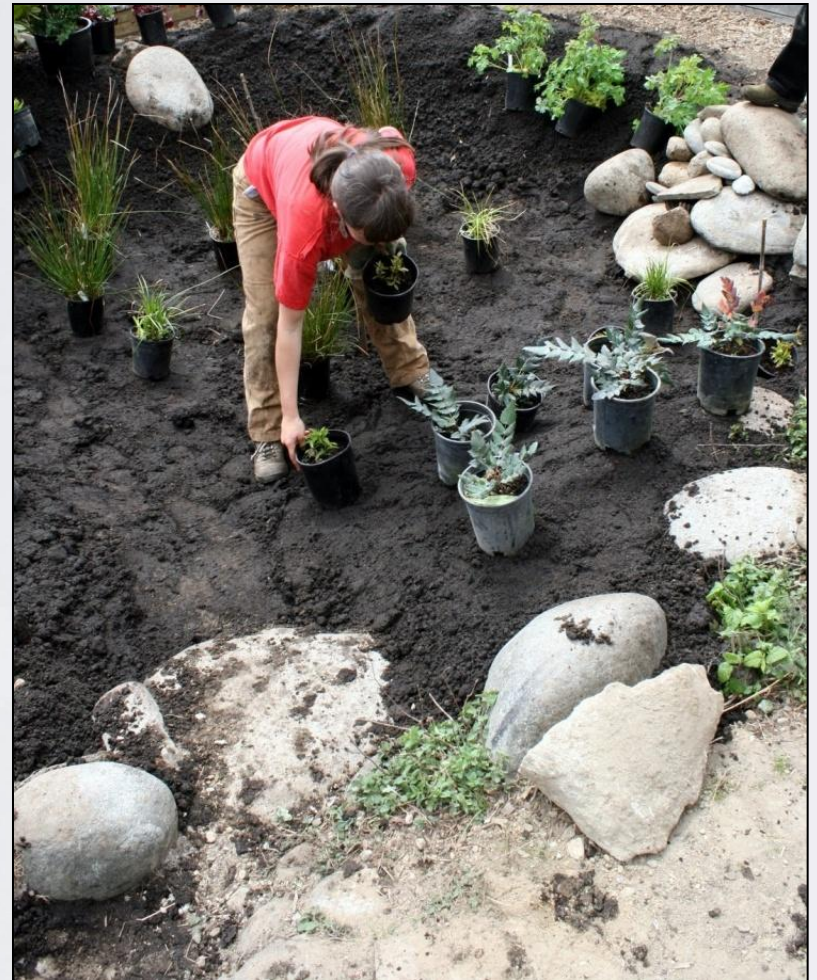
- Improve existing system - retrofits
- Construct storage projects in three CSO basins
- Pilot green infrastructure projects
- Complete Long-Term Control Plan



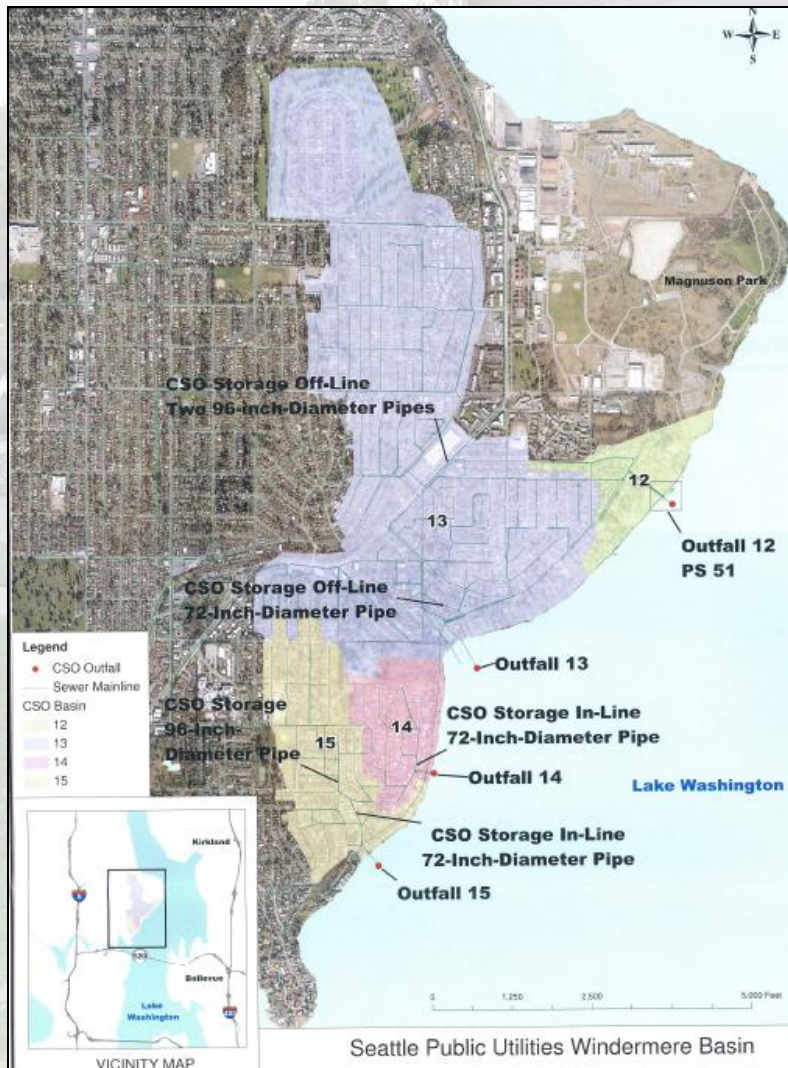


Green for Green

- 💧 Leader in Green Stormwater Infrastructure
- 💧 Allows stormwater to slowly filter into the ground, keeping it out of the sewer system
- 💧 RainWise offers incentives for homeowners to install rain gardens and cisterns
- 💧 More info at www.rainwise.seattle.gov

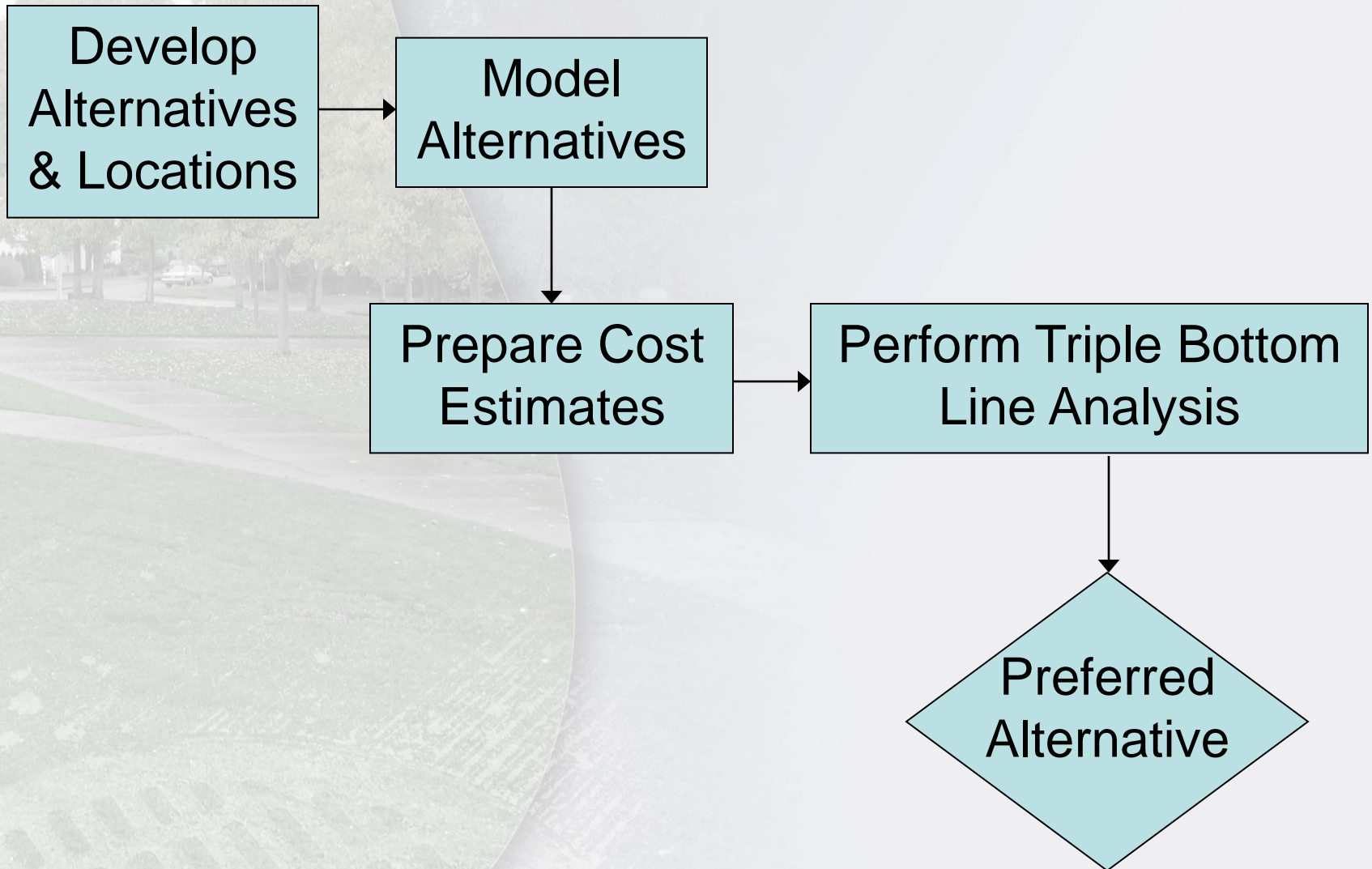


Windermere CSO Basin



- Top-Priority Basin
- 848 Acres
- Construction 2012-2014
- Reduces CSOs from 12 times to 1 time per year
- Storage Tank 2.05 MG

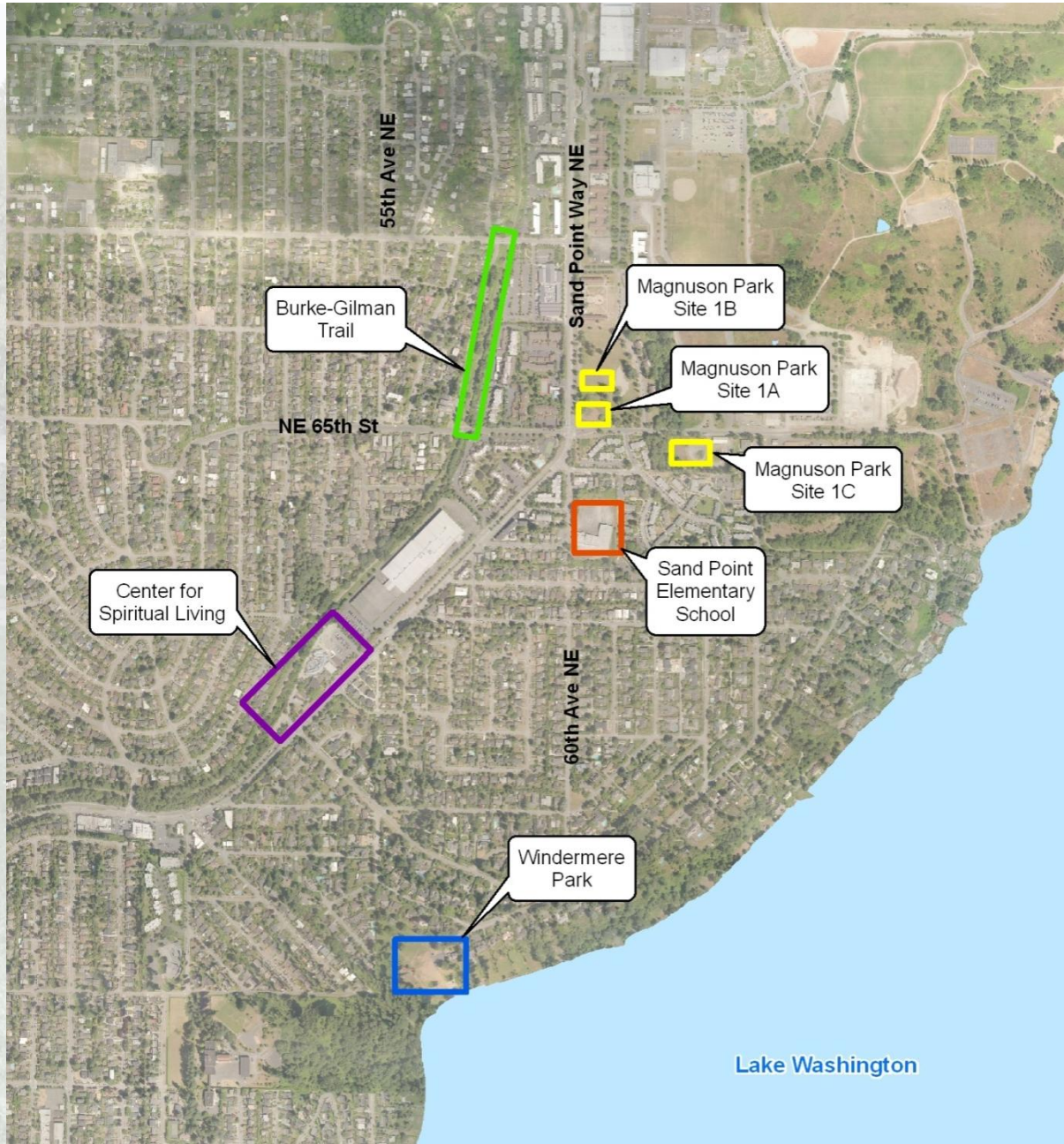
Screening Process



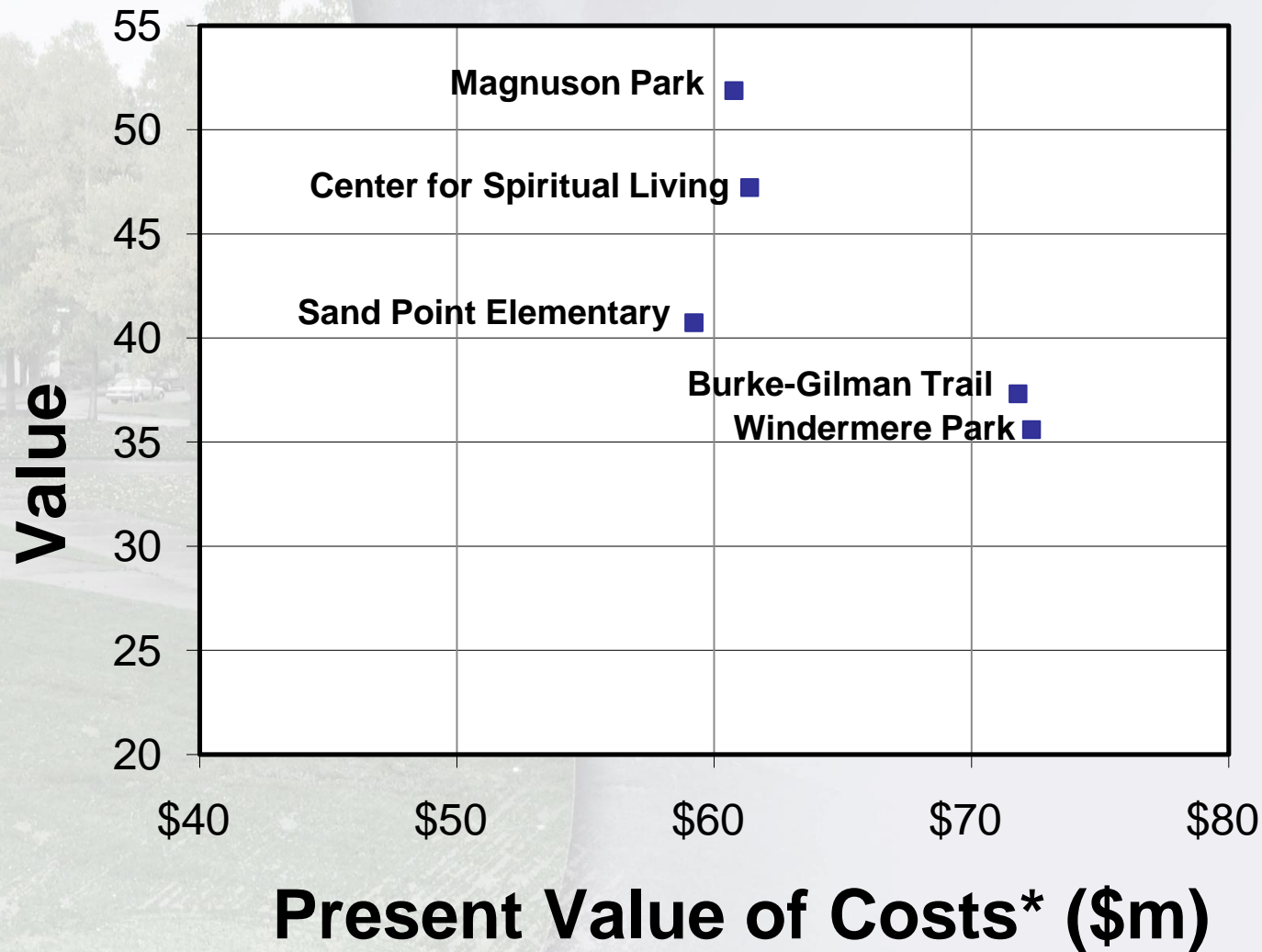
Screening Criteria

- 💧 Minimize long-run life cycle cost
- 💧 Minimize construction impacts
- 💧 Community and stakeholder acceptance
- 💧 Protect the environment
- 💧 Practical & safe to maintain & secure
- 💧 Consistent with City Green & Sustainability initiative
- 💧 Maximize flexibility & system redundancy

Top Alternatives



Value vs. Cost



*Costs are based on planning level estimates

Alternative 1 – Magnuson Park



Three Alternatives

- 💧 1A: Parks Property – NE 65th St Entrance
- 💧 1B: Housing Site – Meadows at NE 65th St Entrance
- 💧 1C: Housing Site – South of NE 65th St

Preferred Site – Magnuson Park 1C: South of NE 65th St

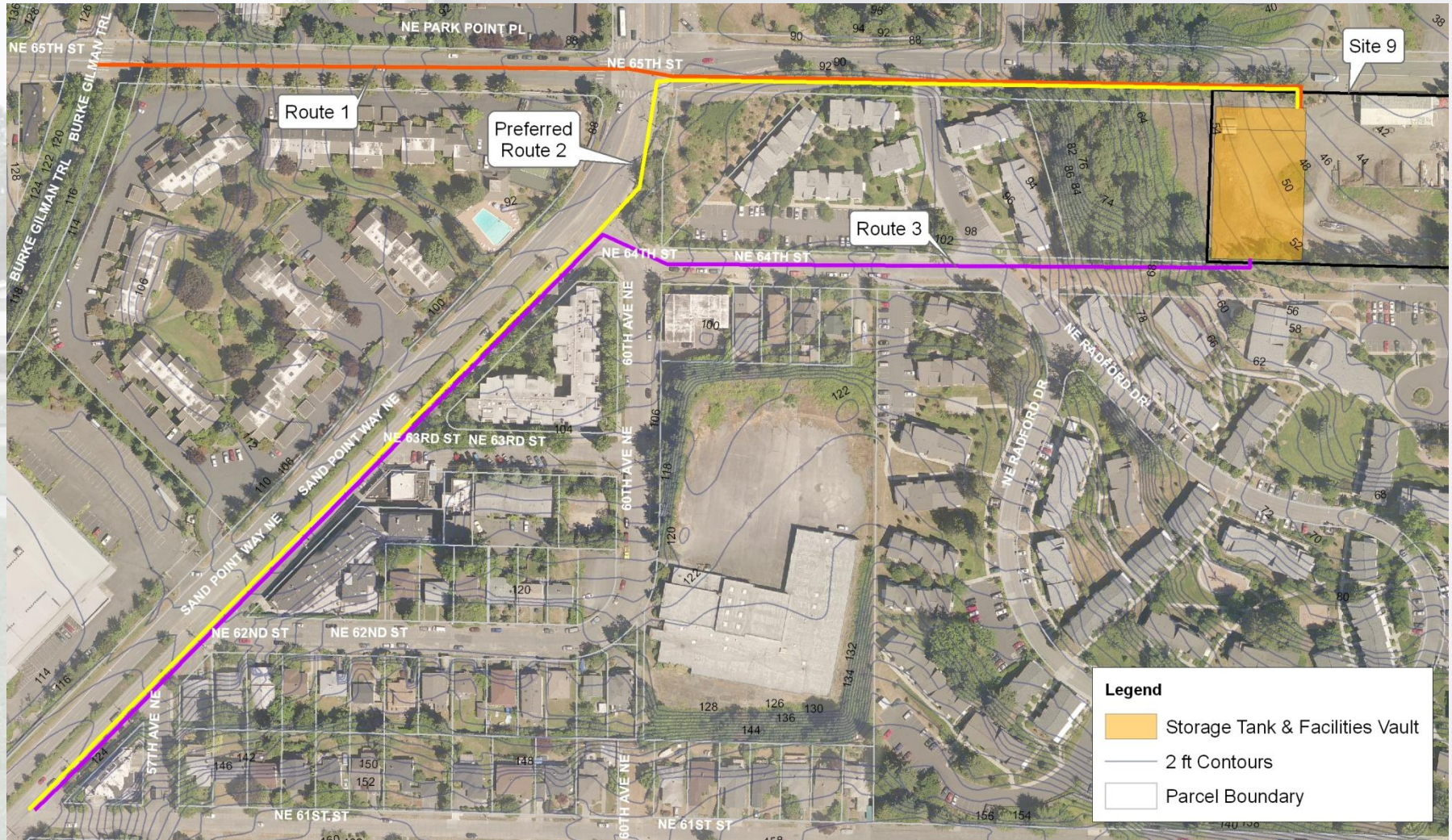


- 💧 Discussing with Housing, Parks, UW and Solid Ground
- 💧 Currently used by Parks for storage and staging
- 💧 CSO storage will be buried
- 💧 Site could still be used for housing

Magnuson Park Alternative 1C



Diversion Piping



Preferred Route



- 💧 No impact to Burke-Gilman Trail
- 💧 Impacts to Sand Point Way: 1-2 lane closures for approximately 3-4 months
- 💧 Maintain access on NE 65th St and to boat ramp

Community Concerns

- 💧 Traffic & Park Access
- 💧 Work Hours & Workplace Expectations
- 💧 Parking
- 💧 Noise
- 💧 Odors
- 💧 Maintenance
- 💧 Structural Integrity
- 💧 Site Restoration



Traffic Requirements

- 💧 Minimize lane closures & impact to traffic
- 💧 Maximize number of traffic lanes open during peak hours
- 💧 Maintain safe pedestrian & bicycle walkways
- 💧 Maintain access for emergency vehicles
- 💧 Minimize construction impacts to traffic during peak hours



Park Access

- 💧 Maintain traffic access on NE 65th Street & minimize impacts to Park users and USGS staff



Noise During Construction

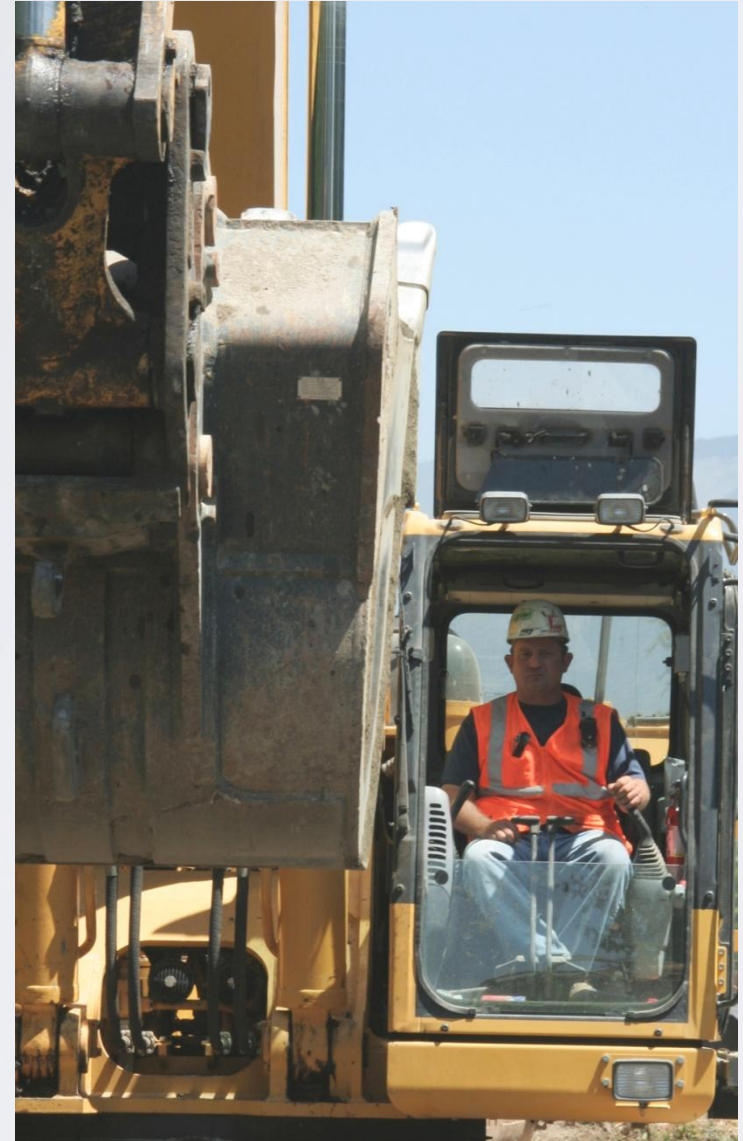
- Will meet City of Seattle noise requirements for construction
- Sounds created by construction equipment are limited to:
 - 7 am to 7 pm weekdays
 - 9 am to 7 pm weekends and legal holidays



Typical Work Hours

Construction Schedule

- 💧 Monday-Friday
 - Between 7 am and 7 pm
- 💧 Possible weekends and holidays
 - Between 9 am and 7 pm



Workplace Expectations

- 💧 Respect for the community & neighbors
- 💧 Partner with the contractor for workplace expectations
- 💧 Public call line



Parking

- 💧 Construction worker parking limited to designated area



Odor Control During Operation

- 💧 Buried odor control in vaults
- 💧 Odor system operates year round
- 💧 Carbon-based air scrubber
- 💧 Vent designed to blend in with other site features



Maintenance Requirements

- 💧 Routine inspection (1 day/month)
- 💧 Event inspection (2-3 times/year)
- 💧 Regular equipment inspection – truck or van
- 💧 Cleaning (2-3 days every 1 to 5 years)
- 💧 Cleaning Equipment – vactor truck or crane



Structural Integrity

- 💧 Earthquake design standards
- 💧 Structural inspection after an earthquake
- 💧 Tank will fill 2 to 3 times per year on average



Restoration and Future Use



Existing Site Condition

- Remove existing facilities
- Plant with native vegetation
- Parking & turnaround for maintenance vehicles
- Street restoration
- Pedestrian improvements on NE 65th Street
- Future use to be determined by Office for Housing

Next Steps

- 💧 Engineering Activities
- 💧 Land surveying
- 💧 Geotechnical borings
- 💧 Historical/cultural research
- 💧 Environmental review
- 💧 Continued public outreach during design & construction

Project Schedule

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Previous Outreach to Community Stakeholders

- ✓ **February 17** – Solid Ground
- ✓ **March 10** – Magnuson Park Advisory Committee
- ✓ **April 1** – Northeast District Council
- ✓ **April 20** – View Ridge Community Council
- ✓ **April 21** – Hawthorne Hills Community Council
- ✓ **April 23** – UW Housing

Project Outreach

- ◆ Project Information Meeting
- ◆ Outreach to community organizations:
 - Northeast District Council
 - Magnuson Park Advisory Council
 - Hawthorne Hills Community Council
 - View Ridge Community Council
 - UW Housing, Solid Ground, Parks
- ◆ Project e-mail: SPU_WCSO@seattle.gov
- ◆ Project hotline: 206-826-4767